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ABSTRACT

This project involves assessing the knowledge base in the education and rearing of gifted children, by developing a literature review summarizing recommended practices. A rationale for the project is presented, discussing the idea of recommended practices, the state of the knowledge base, methods for providing guidance to researchers, and the implementation of the literature review/analysis process. A draft list of 106 recommended practices in the education of the gifted, representing work in progress, is included in this report. The project is expected to culminate in a document which will review each recommended practice; indicate strengths and weaknesses in its knowledge base; and suggest research which is needed to validate, clarify, or refute a particular item. A bibliography of 98 books and reports being used in the literature review concludes the document. (JDD)

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Recommended Practices in the Education and Upbringing of the Gifted

A Progress Report on an Assessment of the Knowledge Base

Leadership Accessing Monograph

Education of Gifted and Talented Youth

Dr. Bruce Shore, Director of Giftedness Centre, McGill University

Indiana Department of Education
Office of Gifted and Talented Education
H. Dean Evans, Superintendent

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A Progress Report on An Assessment of Knowledge Base

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Education of Gifted and Talented Youth

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Introduction

In the school year 1985-86, Purdue University, in contract with the Indiana Department of Education, organized the Leadership Accessing Project, a program that provided state-of-the-art information and guidelines concerning the development of programs for gifted and talented youth of Indiana school corporations. Five nationally and internationally recognized specialists in gifted and talented education, Ms. June Cox, Dr. Merle Karnes, Dr. Bruce Shore, Dr. Barbara Clark, and Dr. Abraham Tannenbaum, gave symposium addresses at three sites in Indiana (Indianapolis, Columbus, and South Bend). They addressed key issues and problems in identification, programming, and curriculum development for the gifted.

In addition, the symposiasts submitted the following monographs for publication by the Indiana Department of Education. Each includes thought provoking advice concerning program development for gifted and talented youth.

The symposiasts were selected by a project advisory committee using the following criteria: (1) the nominees were known by the project leaders and/or advisory committee members to have a significant message for gifted and talented education, and (2) the nominees had never or rarely presented their ideas in Indiana.

Introduction to Monograph

In this monograph, Bruce Shore summarized the ongoing work in "assessing the state of the knowledge regarding practices of educating and rearing gifted children" which he is doing with the help of three colleagues. The knowledge base this group is "gleaning" consists of 98 major books on giftedness, every article on giftedness published in major journals on giftedness, and a thorough ERIC search. The team has developed a working list of 106 recommended practices. A thorough search of the literature will hopefully reveal the extent to which each of these is likely to be supported, refuted, or in need of clarification. Shore and his colleagues predict that the following will be supported: "Identification should be based on multiple criteria;" "Teachers' judgments should be considered." It is expected that "Identification should be based on high IQ scores" and "Broad curriculum choice should be available" will be refuted. These are examples of those requiring clarification: "Gifted underachievers require special, student-centered intervention", and "Gifted underachievers should be treated as part of a regular gifted program".

Shore's group has undertaken a very difficult task, but a task of great significance. The field of gifted education is led by well-intentioned enthusiasts, who have very little theory and even less empiricle evidence to draw upon for guidance and direction. This effort to synthesize the knowledge base to data should not only provide the guidance and direction, but also stimulate new and confirming research.

Biography of Dr. Bruce M. Shore

Dr. Bruce M. Shore is Professor of Educational Psychology in the Department of Educational Psychology and Counseling at the Centre for University Teaching and Learning, Giftedness Centre, McGill University, Montreal, Quebec, Canada. He received his bachelor of science and master of arts degrees from McGill University and his Ph.D. from the University of Calgary. He is a licensed Psychologist in Quebec.

Dr. Shore's research interests include studying how the thinking processes of gifted learners are different from those of others, the assessment of the knowledge bases in the education of the gifted, and effective teaching and learning in higher education and high level learning. His recent publications have appeared in the *Gifted Child Quarterly*, the *Journal for the Education of the Gifted* and other journals. He serves as the Canadian governor-at-large of the Association for the Gifted of the Council for Exceptional Children and as treasurer of Giftedness Quebec/Douance Quebec. He is the past secretary of the World Council for Gifted and Talented Children.

Abstract

The authors have undertaken to assess the state of knowledge regarding practices of educating and rearing gifted children. A list of recommended practices is being gleaned from 98 major books on giftedness, and every article in the last decade in the major periodicals on giftedness plus hundreds of others from an ERIC search covering the same period. The project will culminate in a book reviewing each recommended practice, indicating strengths and weaknesses in its knowledge base, and suggesting research which is needed to validate, clarify or refute a particular item. This report presents the rationale for the project, the working list of 106 recommended practices, examples of those likely to be supported, refuted, or found in need of clarification, and the bibliography.

Part A: Background to the Project

This is a progress report of an attempt to evaluate in an original and useful manner the knowledge base underlying recommendations on how to educate and bring up gifted young people. This broad goal is not in itself original, since, in effect, it will summarize what we know and what we urge others to do. This approach is only one of several ways in which the task can be and has been done.

The most familiar approach is the general textbook. Each varies in style and focus; one or more stress curriculum, child development, or philosophical and research underpinnings. Another source of the state of knowledge is the edited volume of expert reviews on specific topics, in the form of yearbooks, conference proceedings, and independently prepared anthologies. Many do a superb job of providing an integration from the author's or editor's expert perspective. Our goal is to complement, not compete with, these words. Indeed, as will be explained below, these words form the principal basis of our efforts.

Our specific goals are as follows. First, we propose to describe at a point in time the recommended practices a teacher or parent is likely to encounter when seeking general advice on how to cope with a gifted child. Second, we hope to provide a review of the knowledge base for each of these recommended practices. Finally, we hope to provide guidance to researchers, especially those with an interest in studying practical or applied questions about giftedness. These goals are elaborated below.

The Idea of Recommended Practices

The term "recommended practices" implies a level of agreement in the field that is somewhat less than is represented by the word "standards." Standards are widely adhered to and form the basis for some process of certification or accreditation. Recommended practices, on the other hand, comprise the considered advice of experts and persons actively involved in the field. They may be derived from empirical investigation or experimentation, but they frequently are not. In the field of giftedness, as in most fields, recommended practices or detailed initial advice are most likely to be found in textbooks or similar published works. As a result, our list of recommended practices in the education and upbringing of the gifted is to be based on a systematic review of some 98 books in the field. The process we are using is described later. What is important here is that we are giving highest priority to books on giftedness and the gifted as the sources for the recommended practices we shall discuss.

This focus on recommended practices so defined exemplifies the uniqueness of our undertaking. We are approaching the knowledge base from the perspective of what we are told to do with or about gifted children, then seeking the support or refutation of each point of this advice. We chose not to look through all the published research on giftedness, talent and creativity, and attempt to derive implications for action from the individual contributions and from the collection of material. This task would take years and be of little help in making judgments about what parents and teachers actually do. It is, of course, the traditional way in which such tasks are undertaken (including term papers and theses). We also chose not to look first at theory derived from published research and then to consider implications for action which should ensue; theories of giftedness are barely evolving and still too distant from classroom or home application to provide much to work with. A third possibility would be to develop a conceptual or philosophical structure of ideal programs for the gifted and derive suitable recommended practices; this has been done by Ward many years ago and is being pursued by his former students, and Passow (1980), among others, has suggested guiding principles for such action. The fruits of such work will be valuable points of comparison for what is actually advised, but it is the latter which attracted the attention of the present authors.

The alternative chosen was to begin with a search for the advice which is, in fact, the basis for what parents or teachers presently do or are advised to do. We are using the term "recommended practices" to describe these suggestions. In thinking about where such advice would be found, our decision was to check books on giftedness. Books are more likely than journals to contain prescriptions for action, especially as the principal journals in the field are increasing the amount of research they publish. That is not to say that similar advice is not available in journals, magazines, films, and other media, but we have emphasized books because of the status they retain in our educational system,

because of their role in integrating knowledge in a field where scholarship is diffused and poorly supported financially, and because of their widespread availability and durability. Indeed some rather unfortunately durable books with highly contestable advice are often very readily available, more so than the latest scholarly journals in which the issues at hand may be coming under critical examination. We decided to use as a knowledge base not only the best information on the topic, but also the information that is widely used and likely to be consulted by concerned parents or teachers.

The second way in which we intend to break new ground is our intentional (though relative) nonselectivity. We have collected and abstracted material from a large and diverse collection of nearly 100 books. We have included some by authors who have been widely acclaimed, and others who have been severely criticized. We have new and old titles. We certainly have books that give contradictory or potentially contradictory advice. This will be illustrated below.

The State of the Knowledge Base

The direction we are following is an "applied" one. Formal research based on well developed theory and models, designed to increase incrementally our knowledge in the field in well defined relationships to other knowledge, accounts for a very small portion of the literature on giftedness. Many studies are inquiries of local or personal interest. Much of the research activity is conducted by teachers and others as part of graduate degree requirements. There have also been relatively few university positions in the field where such research could be done; many of the university posts have been seen by their institutions as training positions without time, reward, or other concern for scholarship. A relatively small number of researchers in an equally small number of universities are involved in ongoing research, but few links can be drawn yet among these various thrusts. On the other hand, there is a large and growing amount of activity "out there" and there is an urgent need for practitioners to be able to assess the support for action they propose and to contribute to improving our knowledge in their areas of activity for the benefit of all.

Our contribution to the amelioration of this situation will be to provide short reviews of the support or refutation for each of the recommended practices, together with selected references. To produce this part of our final report we are going through every issue of the main journals and other serials dealing primarily with gifted over the past decade, checking every article and cross-referencing each to the recommended practices to which it is relevant, supporting or refuting the recommended practices. The periodicals included are *Gifted Child Quarterly, Journal for the Education of the Gifted, Roeper Review, Gifted Education International, Gifted International, Gifted Children Monthly,* and *G/C/T* magazine. Furthermore, we have conducted a ten-year ERIC search under the terms "gifted" and "giftedness" through journals other than listed above, and have generated several thousand abstracts. These are being checked against the recommended practices list and those which add points not covered in the search through the "gifted" serials will also be cross-referenced to the recommended practices. The present plan is to present the list of recommended practices plus selected major references in book form some time in 1987. The complete, cross-referenced list of articles will be deposited with a suitable agency or clearinghouse and made available on-line, on disk, in micro-form or hard card copy (the choice has not been made) to anyone who wishes to pursue the matter in detail.

A large number of useful studies are probably contained in theses and dissertations. We have not yet decided if or how to include these data in this first assessment.

This, therefore, represents a knowledge base in the narrower sense of bringing the best knowledge available into proximity with that which is most widely available and likely to be consulted by a teacher or parent. While some favorite program element might be challenged by this process, there would be a considerable gain in defensibility of what is retained.

Providing Guidance to Researchers

This third goal is served in at least two ways. First, we do not, by this effort, expect to influence directly the work of the relatively small but growing number of researchers who are pursuing studies of questions derived from theories or models of giftedness. That work has focus and can be related to other research in cognition, developmental psychology, personality, etc. It is, as noted above, our assessment that most of the research time devoted to giftedness is on practical questions, done by people who are not career researchers and who find themselves physically or otherwise

isolated from other researchers interested in giftedness.

These researchers, be they graduate students, instructors in small colleges, teachers reporting on classroom experiments, research and evaluation staff of local education agencies, or others, if involved in applied studies, will not be able to identify a context for their work and to undertake studies which may systematically contribute to plugging gaps in our knowledge.

To assist this process, we propose to include in the reviews of the recommended practices assessments of the extent to which each appears to be well supported, refuted, or at issue, and to suggest both theoretical contexts which might be usefully explored and specific questions whose study would help to close the gaps in our knowledge where more is required. In effect, our report will hopefully be a research-idea book. We are considering the inclusion of a feedback form which would enable people who use the book for this purpose or who conduct any study which might close (or create!) a gap in the knowledge base to enter this information in a data base and perhaps be referred to others with similar interests. Creation of such networks of researchers (career or temporary) with concerns for similar questions could be an exciting prospect. Such an undertaking would probably depend on securing a modest amount of financial support to maintain the data base and network.

The Process

The project consists of a series of steps, some of which partially overlap. The first step was to identify a list of books which would be examined in detail and from which the working list of recommended practices would be generated. The 98 selected appear in the bibliography which concludes this report. Those 52 with astericks have been examined in detail as of April 1986. Following the detailed examination of the remaining titles, we expect to make a few additions and minor revisions to the list of recommended practices. A team of the first author, a research assistant, and several graduate students read several books at a time and met weekly comparing notes in an attempt to agree on (a) what we meant by recommended practice in terms of specificity, and (b) what recommended practices were advocated in a particular book. After about six weeks, we agreed on a level of generality that is more easily illustrated than described. The current working list is printed later in this report.

Recommended practices are general to the extent that they do not, for example, specify particular instruments in the case of identification processes where instructions may be involved, yet they are specific enough to convey useful information to a teacher. They are approximately at the level of section headings or subheadings in a textbook. As new recommended practices were derived and edited, they were compared for this sense of level with others on the list. There is undoubtedly variation in specificity, but we find the list as it is now constructed to be useful for the task at hand. Through discussion, even debate, we reached consensus on the list of recommended practices derived from each book. Errors of omission here are not likely to be serious since there is much repetition among the books and since over half have already been analyzed. The list of recommended practices is likely to be at least adequate.

Detailed records are kept on each book, including the pages on which the recommended practices are mentioned. This information is in the process of being entered in a microcomputer data base that will enable us to access and list the contents by author or book with a list of recommended practices addressed by each or, more usefully for future investigations, by recommended practice, listing the sources for each. Subsequently these cross-listings will also be available.

Once the basic list of recommended practices began to emerge, we met once more as a group, and, for convenience only, grouped them into related sets. The chapter and section titles of general textbooks on giftedness were used as guidelines for these headings. It is clear from the enclosed listing that the assignment of some of the recommended practices is somewhat arbitrary; some fit in more than one category, and some badly in any. The category system was used because it makes the presentation less overpowering.

The second major step is the cross-referencing of journal and other material. This is just underway. Every article published in the last decade in the publications noted earlier is being listed with as many recommended practices as needed. The same is to be done with the articles identified by the ERIC search reported earlier, and selectively with the hundreds of conference papers presented and published in recent years. These data will also be computerized in a separate, but parallel data base, which will also be printed out by article (as it will be entered) and by recommended practice (as it will be required for any critical analysis). These, too, will be made available as supplementary

documents to others who may wish to have them. The cross-referencing tasks are being conducted by a second research assistant and graduate students employed for the summer.

The third step will begin in the autumn of 1986. The list of recommended practices will be "closed" for the present work and a brief review of each recommended process will be written. The length of these reviews will be determined based on pilot reviews of various lengths which are now being drafted. The actual writing will be divided among the four authors and graduate assistants, with final editing to be done by the principal authors. The reviews will address the extent to which each recommended practice is supported or refuted in the literature, or remains an open case. Each will also, as noted above, indicate suitable theoretical contexts for examining these questions and suggest research questions which might be profitably asked.

If deemed valuable, we could look forward to updating the volume from time to time.

Value of the Work

The final judgment cannot be predicted. Theoretically, the work is certainly unconventional. It would be useful and interesting for those who would devise a theoretical or axiomatic approach to contrast the contributions of each to our better understanding of giftedness and the defensibility of differentiated programs for the gifted. One of us (Ward) was among the first to propose such an approach. Our final report will conclude with at least a brief attempt to assess the ability of our work to contribute to the growth of such knowledge.

The task we have undertaken, however, is not primarily designed to have a direct theoretical impact. It is intended first to be a practical exercise, which, if it successfully leads to the systematic study of critical questions in gifted education may provide better data than we now have for the building of models and theories about the education and upbringing of gifted children. If those who examine our work concur that (a) the whole exercise is a reasonable perspective to add to others, (b) the books we have used provide a good overview of the field, (c) the recommended practices we have stated are a defensible reflection of the domain, (d) our assessments of the knowledge base for each are fair, (3) the proposals we offer for plugging some of the gaps are reasonable, and (f), most importantly of all, researchers do some of the studies we suggest, modify them, or design their own, motivated by our efforts, and relate their results in the dissemination of their work to our conceptual framework, then we will have made a contribution.

The value of this work lies not in revealing new truths, though there may be a few surprises, but in creating a framework in which new practical research can be focused and related to a broader picture. The development of our knowledge about giftedness and the gifted is not greatly assisted by isolated, one-shot research. The traditional focus of theory-based research does not drive most of the investigations about giftedness; whether or not it should is another matter, probably for dispute. We suggest by the presentation of this work that answering the practical questions first is defensible professionally, ethically, and in terms of the personal and career interests of the people doing these studies. It is, therefore, reasonable that a means should be provided whereby this work would have the opportunity to be presented in a conceptual framework and be carried forward by a need for the knowledge that is not merely local. The present work is conducted in that spirit, and with the hope that the two approaches will eventually converge.

Comments and suggestions on any part of the Committee's work are very welcome.

Part B: Some Products of the Project

Draft List of Recommended Practices in the Education of the Gifted as Gleaned from the Book Literature

This is a working list, a portion of the task only partly completed. Several of the entries require further editing, and some may be deleted, added or moved as the background work proceeds. It should not be cited or quoted without explicit acknowledgement of this status.

Identification

ID/01 Systematic identification should be done on a widespread scale in every school and community.
ID/02 Identification must take into account cultural and social differences.
ID/03 Affective talents should be included.
ID/04 Identification should be done as early as possible.
ID/05 Early admission to first grade or kindergarten should be considered appropriate in specific cases.
ID/06 Identification should be based on high IQ scores.
ID/07 Identification should be based on multiple criteria.
ID/08 Identification should be an ongoing process extending into college.
ID/09 Participation in a program should be voluntary.
ID/10 Identification should include testing for potential.
ID/11 Student selection should be appropriate to the specific program.
ID/12 Psychologists knowledgeable about giftedness should particiapte in the identification process.
ID/13 Standardized identification instruments are especially appropriate during junior high school years.
ID/14 Teachers' judgments should be considered.
ID/15 Identification instruments should have high maximum scores.

Family and Personal Development

FP/01 Parents require emotional support such as from parent groups and counselors.
FP/02 Parents should participate in gifted children's programs and in lobbying.
FP/03 Parents should be made aware of stereotypes of giftedness.
FP/04 Parents should allow free and unscheduled time outside of school.
FP/05 Particular attention should be given to the development of personal independence.
FP/06 Gifted children should not be labeled.
FP/07 Leadership should be identified and developed.
FP/08 Differential education of the gifted should give particular attention to the development of positive self-concept.

Counseling/Psychology

CP/01 Gifted children should be aware of the meaning of giftedness.
CP/02 Gifted children should be aware of the objectives of their programs.
CP/03 Group counseling is recommended for gifted students.
CP/04 Specially trained educational and vocational counselors are required.
CP/05 Creative abilities should not be ignored or abused.

CP/06 University counseling services should be sensitive to the needs of accelerated gifted matriculants.
CP/07 Functional limitations of gifted students' physical, social, and emotional development should be taken into account.
CP/08 Gifted children need to be encouraged to broaden their interests.
CP/09 Programs for the gifted should take into account their early development of intrinsic motivation.
CP/10 The potential for giftedness in all children must be fostered and enhanced through early preschool intervention.
CP/11 Parents and teachers need training in order to change sexist attitudes (e.g., regarding mathematics and careers).
CP/12 Conformity should not be forced on highly individualistic gifted persons.
CP/13 The gifted need help to anticipate and overcome the problems they will encounter in the world of work.

Administration/Advocacy

AD/01 Acceleration should be a component of differential education for the gifted.
AD/02 Acceleration and enrichment should be integrated.
AD/03 Programs should combine a common curriculum with individual programming.
AD/04 Programs should make use of a wide variety of school and community resources.
AD/05 Programs should provide consultant services for teachers.
AD/06 Coordination is required among levels from elementary to university.
AD/07 Cross age grouping is appropriate.
AD/08 Enrichment should be a component of differential education for the gifted.
AD/09 Administration and funding of programs for the gifted should be separate from those for other exceptional children.
AD/10 Ability grouping, not necessarily full time, is essential.
AD/11 Government support should be solicited to ensure the viability of differential education for the gifted.
AD/12 Grading of student work, if done at all, should be flexible and designated as arising from a program for the gifted.
AD/13 Programs for the gifted should be designed as a part of the ongoing individualization of education for all children.
AD/14 Student content interests should be systematically assessed.
AD/15 The type of intervention should be adapted to different levels of giftedness.
AD/16 Mentors should be used.
AD/17 Less teacher-centered pedagogy is suitable (e.g., open classrooms, resource rooms, mentors).
AD/18 Resource specialists in subject matter, guidance, methods, and media should be involved.
AD/19 School authorities should designate a full-time professional coordinator for differential education for the gifted.
AD/20 Continuous program evaluation should be a part of any program.
AD/21 Information programs are needed to encourage and maintain support for services for the gifted.
AD/22 The gifted need access to a variety of teachers, mentors, and counselors as role models.
AD/23 Gifted students' ability should be tested at regular intervals.
AD/24 Education for the gifted should be based on multidisciplinary study (e.g., psychology, education, social sciences).

Curriculum Content/Skills

CC/01 Programs for the gifted must provide a whole environment, stressing effective as well as cognitive growth.
CC/02 The arts should be a component of differential education for the gifted.
CC/03 Career education should be a component of differential education for the gifted, especially females.

CC/04 Extracurricular activities should be encouraged.
CC/05 Broad curricula choices should be available.
CC/06 Humanistic values and development of higher level moral reasoning should be components of curricula for the gifted.
CC/07 Materials should be of high quality and reading level, require more complex verbal responses and minimal repetition.
CC/08 Curriculum should reflect world affairs and the universality of knowledge.
CC/09 The use and study of microcomputers should be included in differential education for the gifted.
CC/10 Curriculum for the gifted should be future-oriented.
CC/11 Differential education of the gifted should include the study of gifted historical figures as models.
CC/12 Gifted children require a qualitatively different education, with a distinctive curriculum, at least part of the time.
CC/13 Programs must take into account the learning styles of the students.
CC/14 Gifted children should learn research skills.
CC/15 Programs must provide for the development of communication skills.
CC/16 Programs should include the teaching and practice of thinking skills.
CC/17 The development of team-work skills should be a component of differential education for the gifted.
CC/18 Gifted children need to set both long and short term goals.

Teaching Strategies

TS/01 Teaching methods should call for high level cognitive processes and creativity.
TS/02 Gifted students should have a knowledge and awareness of the learning process.
TS/03 Inquiry, discovery, and problem-solving approaches are especially appropriate.
TS/04 The investigation of real problems and solutions should be emphasized.
TS/05 The gifted should be prepared for high level occupations.
TS/06 Gifted children can learn by teaching other gifted children.
TS/07 Rapid pacing should be provided.
TS/08 Gifted children should be taught to complete their tasks so their achievement will match their ability.
TS/09 Curriculum should emphasize abstract concepts along with careful attention to basic concepts.
TS/10 Programs must be characterized by high standards of performance, using professional end products as models.
TS/11 Emphasis should be placed on the in-depth investigation of subject matter.
TS/12 Reading programs for the gifted should be highly individualized.
TS/13 Independent study under competent supervision should be included.

Special Groups

SG/01 The creatively gifted require special intervention, including counseling.
SG/02 Programs should respect cultural and social differences.
SG/03 Gifted disadvantaged children require special intervention.
SG/04 Extra effort is required in the identification of gifted girls.
SG/05 Secondary mathematics and advanced science should be part of the curriculum for gifted girls.
SG/06 Extra effort is required in the identification of the gifted handicapped.
SG/07 Parents of the handicapped gifted require a separate support group.
SG/08 The education of the gifted handicapped must be based on their strengths and their particular handicap.
SG/09 Gifted learning-disabled children require special intervention.
SG/10 Rural programs for the gifted require special consideration.
SG/11 Remediation for gifted underachievers must begin early, and extra effort is required in identification.

SG/12 Gifted underachievers require special, student-centered intervention.
SG/13 Gifted underachievers should be treated as part of a regular gifted program.
SG/14 Particular attention should be given to the development of positive self-concept in gifted underachievers.

Personnel Preparation

PP/01 Teachers and administrators should be specially selected and trained.

Preliminary Thoughts on What We Might Expect to Find in the Reviews of the Recommended Practices

These notes are entirely speculative at this point, but they reflect some of the discussion that has come out of the examination of the books. There are also some potential conflicts among some of the recommended practices: They not all mutually comparable. Indeed, most of the formal research on educational practices for the gifted, where such research exists, address the efficacy of particular practices. We anticipate advocating studies of their interactions. Our comments are presented without references and little elaboration, merely as illustrations of the impressions that are forming.

Some Recommended Practices Expected to be Supported

Multiple criteria (ID/07) are highly likely to be confirmed as offering advantages over any single criterion. It is important to acknowledge that this recommended practice is extremely sensitive to context and the definition of giftedness one accepts or at least uses. Multiple criteria used to increase the avenues of entry will embrace a larger number of diverse children; those combined as multiple hurdles will narrow the intake. Furthermore, some criteria used alone are more restrictive than others.

Teachers' judgments (ID/14) are commonly criticized due to their less than perfect correlation with IQ scores. The same data can be interpreted to suggest that teachers recognize other valuable characteristics of giftedness. This is essentially a corollary to the use of multiple criteria.

Positive self-concept (FP/08) recurs as a critical variable in every type of study including delinquency, underachievement and suicide. Its development is quite likely to be well supported as a priority goal.

Special training to overcome sexism (CP/11) appears to be as necessary today as ever. It neither goes nor stays away on its own.

The world of work (CP/13) will probably be confirmed to be as perilous a place as school for many of the gifted, a situation for which some preparation is warranted.

Acceleration (AD/01) appears unequivocally to have a place in overall programming for the gifted, though not for every individual, despite the emotion which continues to surround it. Few other issues have as many references.

Coordination across levels (AD/06) appears to be supported as a condition favoring quality and longevity of programs.

Career education (CC/03) is not provided for most gifted children. Too little, too late, too scarce. This is a good example of the interdependence of these recommended practices. Career education seems clearly linked with self-concept and satisfaction in the world of work.

Qualitatively different education (CC/12), with a distinctive curriculum, at least part of the time, is certainly a more general statement than most of the others. It may be a guiding principle rather than a recommended practice, but it does to some extent tell us what to do. The issue to be confirmed is whether or not the gifted need it, or wouldn't it just be lovely to have it. The answer depends on research demonstrating that important qualitative differences exist in how, at least some of, the gifted think and learn. Some research is now moving in that direction. The odds are good, but they are only odds.

High level processes (TS/01) as a desirable part of teaching methodology may well be supportable. It is still to be determined to what extent this is a unique calling for the gifted, but even if it is

not, a need is likely to remain.

Peer tutoring (TS/06) is offerred as a useful adjunct to other teaching methods. As long as peers are not simplistically defined as those with similar birthdates, some evidence in support is available.

Creatively gifted (SG/01) persons are likely to be confirmed as requiring special intervention. Again, this recommendation overlaps several others. So far most of the evidence appears to be in the form of "horror stories". There is less evidence concerning the positive effects of suitable intervention. The same can be said of most of the other special groups identified in this section.

Some Recommended Practices Expect to be Refuted

Identification based on high IQ (ID/06), perhaps more practiced than recommended, appears destined to refutation, except in those situations where the respected authorities retain faith in the IQ's ability to measure general intelligence or scholastic potential. The arguments here do not arise from issues that can be addressed empirically or experimentally; rather they flow from the premises one accepts about what is the nature of giftedness.

Not labeling giftedness (FP/06) appears headed for a similar fate, if one is concerned about the gifted themselves. Some recent evidence, however, indicates that labeling the gifted is detrimental to their siblings. Qualification rather than elimination may be in the offing.

Broadening their interests (CP/08) may be good specific advice for some of the gifted, but others require narrowing, or perhaps focusing, and specialization. The research needed to add precision to this overgeneralized advice is probably not difficult to conduct.

Broad curriculum choice (CC/05) may be in the same category as the above. It has clearly played a part in the vocational underpreparation of some gifted girls with regard to mathematics. The extreme opposite, a return to idealized nineteenth century curricula, would not be implied by its refutation; a "middle ground" is conceivable.

Teaching of thinking skills (CC/16) also appears likely to require precision. The arguments surround the need for substance as the objects of those thinking skills; there may be evidence that such substance is essential for the thinking skills to mean anything.

In general, the points that have a chance of being refuted are insufficiently differentiated. The process of examining each in detail and in relation to each other may help to retain their valid elements. The points that follow illustrate examples of pairs or groups of recommended practices that might be advocated simultaneously, even if one or more of the points is supported individually.

Some Conflicts to be Resolved among Recommended Practices

Rapid pacing (TS/07), which has wide support, often as an alternative more palatable to some than what is normally understood as acceleration, may be counterproductive for gifted children whose impulsiveness calls for teaching skills which will *increase task completion* (TS/08) so that indices of their performance will better reflect their potential. There are recent arguments for placing greater emphasis on the quality of the work done at whatever speed is comfortable for the learner.

Early identification (ID/04) can be incompatible with seeking *high IQ scores* (ID/06) for younger children. The levels of test difficulty required to generate very high IQ scale scores can be very discouraging for such children.

Not forcing conformity (CP/12) on highly individualistic gifted persons provides an interesting contrast with the need to learn to cope with *difficulties in the work world* (CP/13). Might it be possible to demonstrate the efficacy of encouraging some skills of adaptation which may be seen by others as an acceptable level of conformity? Research on this topic will not be simple.

Separating gifted programs from those for other exceptional children (AD/09) may prove incompatible with *obtaining more government support* (AD/11) for even the most creative administrator.

Student-centered intervention for underachievers (SG/12) and being treated as *part of a regular program* (SG/13) at least require semantic clarification. Does a "regular program" mean the same thing as mainstreaming in a regular class? Or do they together mean that such student-centered intervention should be a part of a comprehensive set of services? What they could mean and how they are, in fact, understood by practitioners in the field is worthy of study.

Broad curricular choice (CC/05), *a common core curriculum* (AD/03), *free unscheduled time outside school* (FP/04) and the encouragement of *extracurricular activities* (CC/04) may lead to stress symptoms, to say the least!

These examples provide some hints of the kinds of studies our report may suggest. Support or refutation is not an absolute distinction. None of the recommended practices we have gleaned from the book literature is without basis. The need we are recognizing, however, is that a comprehensive view reveals the need for precision, a good sign of maturing professional concern. By examining the literature that guides our actions in this way, we hope to contribute to this maturation.

Note: This bibliography is not not necessarily the final version. The authors plan a further review of the contents with both additions and deletions as possibilities, though we hope these will be few in number at this stage.

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